

Abstract

Pixel Arrangement For An Autostereoscopic Display Apparatus

An autostereoscopic display apparatus comprises a spatial light modulator comprising an array of pixels arranged in rows and columns in a pixel plane, and a 5 spatially multiplexing parallax element capable of directing light from successive columns of pixels towards successive ones of two or more viewing windows in a nominal window plane. The pixels comprise pixel apertures having gaps therebetween with the gaps between the columns of pixels extending substantially parallel to the columns of pixels. The arrangement of the pixels is designed taking account of the 10 intensity profile of an image of a nominal human pupil in the nominal window plane formed in the pixel plane by the spatially multiplexing parallax element to reduce the amount of spatially derived flicker observed by a viewer moving in the window plane. In one arrangement, the pixel apertures repeat at a pitch equal to a representative width 15 of said intensity profile. In another arrangement, the total height of the pixel apertures parallel to the columns of pixels has a profile which increases towards the edges of the pixel apertures relative to the centre of the pixel apertures.

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